

Name_____

Chemistry I: Gas Laws Practice Test **B**

Period_____ Date_____

Answer the following problems by **showing ALL work!** (15 pts each)

1. 700.0 mL of oxygen are collected over water at 26.0 °C (v.p. of H₂O = 25.2 mm) and a total pressure of 760.0 mm of mercury. What is the volume of dry oxygen at 52.0 °C and 800.0 mm pressure?

2. What is the final volume of a 450.0 mL gas sample that is subjected to a temperature change from 22.0 °C to 32.0 °C and a pressure change from 760.0 mmHg to 560.0 mmHg?

3. At a pressure of 900.0 mmHg and 24.2 °C, a certain gas has a volume of 350.0 mL. What will be the volume of this gas under STP?

4. How many moles of gas are contained in 890.0 mL at 21.0 °C and 750.0 mm Hg pressure?

5. Calculate the molecular weight of a gas if 35.44 g of the gas stored in a 7.50 L tank exerts a pressure of 60.0 atm at a constant temperature of 35.5 °C.